



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION:	TAY 611-8C	BYPASS RATIO:	3.3
UNIQUE ID NUMBER:	11RR048	PRESSURE RATIO ( $\pi_{00}$ ):	15.9
COMBUSTOR:	Tubular		
ENGINE TYPE:	MTF	RATED THRUST ( $F_{00}$ ) (kN):	61.6

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	5.2	72.4	43.0	5.2
AS % OF ORIGINAL LIMIT	26.6	61.3	59.9	19.1
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			74.9	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			85.7	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			91.2	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			105.1	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 x REVISED (SEE REMARKS)

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.731	0.03	0.50	19.30	4.4
CLIMB OUT	85	2.2	0.604	0.05	0.95	15.40	3.5
APPROACH	30	4.0	0.215	0.65	2.89	5.31	0.5
IDLE	7	26.0	0.102	1.49	24.40	2.53	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			321	275	4123	2500	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				5	5	5	5
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				4.5	66.9	40.6	4.7
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				1.3	11.5	0.9	0.6
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				2.57-5.62	59.55-82.67	39.5-41.7	3.67-5.2

### ACCESSORY LOADS

POWER EXTRACTION	0	(kW)	AT	-	POWER SETTINGS
STAGE BLEED	0	(% CORE FLOW)	AT	-	POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.9-102
TEMPERATURE (K)	281.4-292.5
ABS HUMIDITY (kg/kg)	0.00475-0.00587

### FUEL

SPEC	
H/C	1.95
AROM (%)	17.1

MANUFACTURER: Rolls-Royce plc  
 TEST ORGANIZATION: Rolls-Royce  
 TEST LOCATION: Dahlewitz  
 TEST DATES: 22/01/2002-08/05/2011

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

### REMARKS

1. Certification Report O-TR0546/11
2. Certification in accordance with Part III, Chapter 2, of Amendment 6 of ICAO Annex 16 Vol. II.
3. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)